

ARTICLE VI.

BATRACHIA OF NEW BRUNSWICK.

By PHILIP COX, PH.D.

Read April 5, 1898.

As the following list records only the writer's personal observations, it must be found to contain fewer species than have hitherto been assigned to the province. He does not believe it includes all our batrachian fauna, though he regardsthe occurrence here of some forms, included in early publications, as extremely doubtful. It is the result of many years' research in various parts of the province, made as reliable as possible, by means of the views and opinions of distinguished specialists, who were always consulted on doubtful matters.

Among the Urodela, *Desmognathus fuscus*, Rafinesque, and *A. opacum*, Gravenhorst, the latter closely related to *A. punctatum*, a common salamander, are both likely to be found. They have a place on old lists.

Of the Anoura, *Rana septentrionalis*, Baird, and *R. cantabrigensis*, Baird, may likely be found in the western part of the province, or in the lake region near the Bay of Fundy.

AMBLYSTOMIDÆ.

Ambystoma punctatum, L. Yellow-spotted Salamander.

Generally distributed, but not abundant.

A. jeffersonianum, Green. Granulated Salamander.

Common in river valleys of the southern parts of the province; rare in the northern.

Oromoeto Island, Sunbury Co. Roy McLean Vanwart.

A. jeffersonianum, var. *lateralis*, Hallowell.

Ocuring with the last; but more abundant, and characteristic of our fauna.

PLETHODONTIDÆ.

Plethodon cinereus, Green. Red-backed Salamander.

Same range as *A. jeffersonianum*, but rather rare. Have not collected it on the North Shore.

x I have since found it in northern New Brunswick. Quite common on the Gaspé peninsula, Quebec, where I found it replacing *R. fontinalis*.

P. cinereus, var. *erythronotus*, Green. Red-backed Salamander. Specifically related to the last, but with dorsal stripe very red. Common, and characteristic of our region.

P. glutinosus (*Salamandra glutinosa*). Green. Blue-spotted Salamander. Very rare, and only in the southern parts of the province.

Spelerpes bilineatus (*Salamandra bilineata*). Green.* Small brook at Curry's Mountain, York Co. Roy McLean Vanwart.

S. bilineatus, var. *borealis*. Baird. The typical form in New Brunswick. Valley of the St. John.

DESMOGNATHIDÆ.

Desmognathus ochrophaea, Cope. Painted Salamander.

Oromocto Island, River St. John, *süde* Prof. E. D. Cope. Its first record. In gratitude to this distinguished naturalist, whose kind heart and facile pen were ever at the service of the humblest plodder, I may be pardoned for quoting from a letter, among the last he ever wrote: "The specimen of *D. ochrophaea* represents a variety with a spotted belly, such as I never saw in the United States."

PLEURODELIIDÆ.

Diemyctylus viridescens, Rafinesque. (*Salamandra millepunctata*, Storer). Spotted Newt.

The most aquatic of our Salamanders. In all suitable lakes and ponds.

D. viridescens, var. *miniatus*, Hallowell.

A smaller, red, finless, and less aquatic variety, always found with the former. Represents, probably, a mere seasonal phase.

BUFONIDÆ.

Bufo lentiginosus americanus, LeConte. Toad.

Very common and variable. A more extended and careful examination may show the occurrence here of at least two sub-species.

HYLIDÆ.

Hyla pickeringii, Storer. Tree-Frog.

Found everywhere.

H. versicolor, LeConte. Tree-Frog.

Seems to be rare. Have heard its note in several parts of the province, but seen only one specimen, collected in Gloucester County, and now in the museum of the Miramichi Nat. Science Association, Chatham, N.B.

RANIDÆ.

Rana virescens (*Rana halcina*), Kalm. Green Frog.

Generally distributed over the province.

* Striped-back Salamander.

R. virescens brachycephala, Cope. Green Frog.

A short-headed and stouter form; the dominant type in New Brunswick.

R. palustris, LeConte. Marsh Frog.

In the southern part of the province; not common. Have not met with it in the four northern counties.

R. catesbeiana, Shaw. Bull-Frog.

All over the province, but local. The most aquatic of our frogs.

R. fontinalis, LeConte. Spring-Frog.

Generally distributed; varies greatly. In *fontinalis* I recognize a stout, pustular form, the prevailing type in the northern counties.

R. fontinalis nigricans, Agassiz. Spring-Frog.

A small, black variety, or sub-species met with in rocky brooks.

Noonan Brook, Sunbury Co.

R. fontinalis clamitans, Holbrook. Spring-Frog.

A long-legged, slender, less webbed and less aquatic variety, which I have collected only in the St. John valley. Mr. C. F. B. Rowe has taken specimens in the vicinity of St. John.

R. silvatica, LeConte. Wood-Frog.

Occurs generally, but not abundant. [Mr. C. F. B. Rowe has noted that this species spawns several weeks earlier than other frogs.—ED].

